

# ELECTRONIC RESOURCES REVIEW

*Column editor's note:* In this issue, we look at a different kind of "electronic" resource: hardware. With its e-reader parentage, white-coat-pocket size, and Android capabilities, the Kindle Fire seems well positioned to become popular as a tool for discovering and consuming literature and information, as well as engaging with productivity tools.

**Amazon Kindle Fire (version 6.2.1).** Amazon.com, Seattle, WA; <http://www.amazon.com>; Price: \$199.00. [At the time of writing, available for United States only.]

The Amazon Kindle Fire, Amazon's first tablet device, debuted in November 2011. The low price of the Kindle Fire (just \$199) and its release during the holiday season have led to brisk sales and widespread adoption. It is too soon for a comprehensive review, but what, at first glance, is the potential value of this device for health care students and professionals?

The Kindle Fire easily connects users to magazines and journals, books, music, video, and applications (apps) and makes content easy to buy in all of these areas from Amazon. In fact, that is the purpose of the Kindle Fire. Amazon Chief Executive Officer Jeff Bezos has said, "We don't think of the Kindle Fire as a tablet. We think of it as a service." A native email app comes with the Kindle Fire that supports Gmail, Hotmail, Yahoo, and AOL (but not Microsoft Exchange so a separate paid app such as TouchDown is required for that). In addition, word processing apps (e.g., Documents to Go, Quickoffice, etc.) can be purchased to allow viewing, editing, and sharing documents and spreadsheets. There are apps to help keep users organized and on track (e.g., Evernote, Remember the Milk, etc.). Social media apps make it easy for users to keep up with Twitter and Facebook. It should be noted that the number of apps available for the Kindle Fire is vastly smaller than the number available through iTunes or the Android Market. Kindle Fire apps are available from the Amazon Appstore, which is a small subset of the Android Market.

The design of the Kindle Fire is a big departure from earlier Kindles. It takes a moment to find the small, unlabeled power button on the bottom of the unit. The unintuitively designed starting screen displays an orange arrow that users need to slide from right to left to display all of the content and apps. A house symbol is located in the lower lefthand corner and takes users to their "home" pages. A keyboard comes up when users touch an area where they want to type, but the "keys" are small even for normal-sized fingers (a stylus can be helpful in dealing with this). The Kindle Fire is small enough to fit in a white coat pocket, which is a real selling point for health care students and professionals. It also plays Flash video, which Apple devices like iPads and iPhones do not. However, the Kindle Fire lacks a microphone, a camera, and Bluetooth capability, so it is not possible to use Skype or Bluetooth-enabled keyboards, headsets, or printers. GPS, 3G capability, and an external volume control button are also missing. In addition, the Kindle Fire's 8 GB of memory cannot be expanded.

The Kindle Fire functions well as an e-reader, as well it should. The touch screen (as opposed to the primitive Kindle raised keyboard on earlier models) is back-lit and in full color ("16 million colors in high resolution"). Some consider this an improvement, while others will miss Kindles with E-Ink, which can be read in full sun and is said to be easier on the eyes. An increasing number of medical textbooks are available for the Kindle, including *Nelson Textbook of Pediatrics E-Book*, *Sabiston Textbook of Surgery E-Book*, *Current Medical Diagnosis and Treatment*, *The Washington Manual of Medical Therapeutics*, *Netter's Atlas of Human Anatomy E-Book*, and so on. Some medical dictionaries are also available, including *Dorland's Illustrated Medical Dictionary E-Book* and *Taber's Cyclopedic Medical Dictionary*. Taber's can be set as the default dictionary on the Kindle, which allows users to touch a word in the text they are reading and instantly display the medical definition. All

Kindles allow users to highlight text, add annotations, and search the full text. Unlike some previous Kindles, the Kindle Fire does not support the conversion of text to speech—that is, it cannot read the text out loud. Kindle books often, but not always, cost less than their print counterparts. Currently, just a few medical journals are available for subscription on the Kindle Fire (e.g., *Annals of Internal Medicine*, *Pediatrics*, etc.), but more should be forthcoming.

Entering the generic PubMed address <<http://www.ncbi.nlm.nih.gov/pmc/articles/>> in the Kindle Fire's "Silk" browser automatically brings up the PubMed mobile interface. Users at institutions with SFX-enabled versions of PubMed may be able to access full-text, subscription-based articles via their local wireless networks. Other subscription-based databases and electronic resources may be available from local wireless networks as well. As for off-campus access, the Kindle Fire appears to work with EZProxy, but not with either proxy or virtual private network (VPN) client networks. It is possible to manage portable document format (PDF) documents without buying an app for that, but the paid app, ezPDF Reader, for instance, allows highlighting, annotation, and other useful functions. A file management app (e.g., ES File Explorer) may also be useful for removing PDFs from the device, if desired.

Video content that can be played on the Kindle Fire includes Flash videos (e.g., surgical procedure videos from MedlinePlus, PBS videos on medical topics, etc.). Even if users are not members of Amazon Prime, some of their movies are available to stream for free. Netflix, Hulu, and other apps also allow users to subscribe to movie and TV content.

The Silk browser was designed to provide a faster and smoother searching experience, but this browser does not feel much faster than any other. Also, because Silk saves the user's search history "in the cloud," the Kindle Fire has already elicited a lot of privacy concerns. Due to these privacy issues, it seems unlikely that the Kindle Fire will be used as a medical tablet for recording and

retrieving patient information, telemedicine, and so on [1, 2]. Another privacy issue is that the Kindle Fire displays a "carousel" of icons of apps and websites that the user has recently used or visited. The 6.2.1 Kindle Fire update in December 2011 made it possible for users to manually remove icons from the carousel, but this still seems like a privacy issue. However, users can create a lock screen password to prevent others from viewing their Kindle Fire content and history and can add a password lock to WiFi access.

Immediately after its release, the Kindle Fire was roundly criticized by numerous blogger pundits [3]. The 6.2.1 update improved on a couple of the problem areas that were reported earlier. According to Amazon, "This update enhances fluidity and performance, improves touch navigation responsiveness, gives you the option to choose which items display on the carousel, and adds the ability to add a password lock on Wi-Fi access."

The Kindle Fire has been compared with the iPad as well as the Barnes & Noble Nook, which it more closely resembles [4–6]. The iPad is a fully functioning tablet, while the Kindle Fire and Nook are not. In fact, most of the features mentioned here as missing in the Kindle Fire are available in the iPad. However, the Kindle Fire has its strengths, mainly size, price, and ability to play Flash video.

A number of libraries loan previous Kindle versions to their users [7]. However, most of these libraries, public and academic, have loaded popular reading titles on the devices, not medical textbooks or reference books. How would health sciences libraries decide which books to load on a Kindle Fire? If a previous user annotated a textbook, would it be necessary to remove those annotations before checking the Kindle Fire out to the next user? Are there certain functions that would need to be disabled completely? Perhaps the Kindle Fire best remains a personal device, not an item to be checked out from a library. However, at the least, information professionals should prepare to see an influx of users with Kindle Fires in early 2012, following the holiday, gift-giving season.

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